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A STUDY OF THE RELATIONSHIP OF GEOLOGICAL FORMATION TO THE NORM

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Center for Energy and Environmental Studies
Baton Rouge, Louisiana

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ABSTRACT

Naturally Occurring Radioactive Materials (NORM) is a common and costly contaminant of produced waters associated with natural gas production and exploration. One way of combatting this problem is by identifying the problem beforehand. Our approach to this problem involves development of NORM prediction capabilities based on the geological environment.

During the tenth quarter of this project, emphasis again remained on two major tasks; identifying new sampling sites and seeking approval for final project revisions. In light of the delays experienced, the project has been granted a one year extension, and a revision is currently under review.

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EXECUTIVE SUMMARY:

The Southern University Center for Energy and Environmental Studies along with partners Louisiana State University's Basin Research Institute (BRI), and the U.S. Geological Survey (USGS) have teamed up to explore relationships between geological and radiological factors (NORM). Each of these partners will employ their specific areas of expertise in developing predictive capabilities with respect to NORM in the produced waters associated with natural gas exploration.

The tenth quarter of the project continues to experience major setbacks from the Consolidated Natural Gas (CNG) withdrawal from the effort due to financial considerations. This has is resulted in the major project modifications, now under review. In light of the delays experienced, the project has been granted a one year extension.

PROJECT INTRODUCTION:

This project was to consist of four major tasks: (1) EMWAL Development, (2) Chemical and Radiological Analysis, (3) Correlative Results with Respect to NORM Activity and geological parameters (Geo-environmental maps), and (4) Technology Transfer. Proposed revisions will however, force changes to the above mentioned tasks, particularly with respect to EMWAL development.

The radiological and minor chemical analysis of samples will take place at Southern University with the geo-environmental results being generated at Louisiana State University.

RESULTS AND DISCUSSION:

During this reporting period, efforts were again geared towards guidance and acquiring approval of revisions from the DOE Project Officer and from the Contract Officer. The appropriate methods, etc., continue to be updated and/or modified. We have received word that the proposed revisions are in the final review stages and that a decision should be forthcoming shortly regarding the future of the project.

CONCLUSION:

We are still in the process of identifying a new industrial partner, hopefully one with well sites in Vermillion Parish. This would be essential in that the preliminary geological (PARS) data obtained has focused on the Vermillion Parish area.

Project revisions have been forwarded to the Project Officer at Bartlesville and the Contracting Officer at PETC for final review and guidance. The project has been granted an extension to October 31, 1997, and is under further review. We still however, await word on the project's future.